United States Coast Guard

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COMDTPUB P16700.4
NVIC 6-97

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 697

Subj: POLICY ON QUALIFIED INSTRUCTORS AND DESIGNATED EXAMINERS WHO TRAIN OR ASSESS THE COMPETENCE OF MERCHANT MARINERS

Ref: (a) Interim Rule, Federal Register, Vol. 62, No. 123, pp. 34505, dated June 26, 1997
(b) Navigation and Vessel Inspection Circular 5-95 "Guidelines for Organizations offering Coast Guard Approved Courses"
(c) Navigation and Vessel Inspection Circular No. 7-97, "Guidance on STCW Quality Standards Systems (QSS) for Merchant Mariner Courses or Training Programs
(d) Navigation and Vessel Inspection Circular No. 5-97 "Guidelines on STCW Training Record Books

1. PURPOSE. This circular provides policy guidance on Qualified Instructors and Designated Examiners for training and assessment programs meeting requirements of the 1995 amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978.

2. DIRECTIVES AFFECTED. None.

3. BACKGROUND.

   a. Regulation I/6 of the STCW Convention requires that “those responsible for the training and assessment of competence of seafarers, as required under the Convention” must be “appropriately qualified...for the type and level of training or assessment involved.” The requirements for Qualified Instructors and Designated Examiners have been introduced into U.S. regulations in reference (a), particularly Sections 10.302, 10.304, 10.309 of 46 CFR Part 10, and in Section 12.01 of 46 CFR Part 12.

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b. The regulations in reference (a) provide for the possibility that training or assessment of competence can take place either on board a ship or at a shore-side facility, and either as part of a Coast Guard-approved course (reference (b)), or as part of a Coast Guard-accepted training and assessment program (reference (c)). In some cases, the regulations require a Qualified Instructor and/or a Designated Examiner to make entries in a training record book (references (a) and (d)).

c. The regulations establish requirements for Qualified Instructors and Designated Examiners, and set general standards of qualification. This NVIC promotes consistency in criteria used for identifying such instructors and examiners when they perform functions relating to STCW requirements.

4. DISCUSSION.

a. The Coast Guard will use demonstrated competencies and formalized training, in addition to approved sea service and examinations, as criteria for issuing STCW certificates and endorsements. Only qualified individuals can conduct training or assessment of competence to meet STCW requirements. The following question-and-answer format is intended to provide guidance to:

- assist individuals in determining whether they are qualified to perform the training and assessment functions;

- enable those offering training to merchant mariners to ensure they are adequately staffing their programs with qualified individuals; and

- assist those conducting monitoring of training programs under a Quality Standards Systems (QSS) in evaluating whether the program is achieving its stated objectives and meeting regulatory requirements.

b. The following questions and answers provide information on Qualified Instructors.

(1) *What is a Qualified Instructor?*

The term "Qualified Instructor" is defined in regulations 46 CFR 10.103 and 46 CFR 12.01-6 as "a person who has been trained or instructed in instructional techniques and is otherwise qualified to provide required training to candidates for licenses, documents, and endorsements." All training conducted to meet requirements for STCW certificates or endorsements must be provided by a Qualified Instructor.

(2) *How can I become a Qualified Instructor?*

To become a Qualified Instructor, you must provide documentary evidence that you:

- have experience, training or been instructed in effective instructional techniques;

- are qualified in the task for which the training is being conducted and have relevant operational experience; and

- hold the level of license, endorsement, or other professional credential required for those who would apply on board a vessel the relevant level of knowledge, skills and abilities described in the training objectives.

Documentary evidence may be in the form of performance evaluations which include an evaluation of effectiveness in on-the-job organization and delivery of training and/or a certificate of successful completion from a "train-the-trainer" course. A train-the-trainer course must be based on International Maritime Organizations (IMO) model course 6.09 (Training Course for Instructors), or another Coast Guard accepted syllabus covering the following areas:

- identification of training needs;
- learning processes;
- course design;
- teaching methods;
- recognition of individual capacity;
- identification of performance standards;
- presentation techniques and use of media;
- measurement of progress toward training objectives and of adequate performance;
- favorable and unfavorable conditions for learning;
- the role of incentive and motivation in learning;
- use of feedback for performance improvement; and
- course evaluation.

A specialist in a particular field of non-maritime education (such as mathematics or first aid) or a person with at least three years of service as a member of the Armed Forces of the United States, specializing in the field in which the training is conducted, need not hold a maritime license or document to conduct training in that field.

A faculty member employed at a State maritime academy or the U.S. Merchant Marine Academy operated in accordance with 46 CFR Part 310 and instructing in a navigation or engineering course is qualified to serve as a Qualified Instructor in their area(s) of specialization without individual evaluation by the Coast Guard.

(3) *Does use of a simulator in training or assessment activities affect the requirements I must meet to become a Qualified Instructor ?*

Yes. If a simulator is used, you must gain practical operational experience on the particular type of simulator being used and receive guidance in instructional techniques involving the use of simulators. Such guidance or instruction should include

development of and sequencing of simulated scenarios which have specific learning objectives.

(4) *Is it necessary for the Coast Guard to certificate me as a Qualified Instructor?*

No, a Coast Guard Certificate or Letter is not required. You must be identified as a Qualified Instructor as part of a Coast Guard course approval or as part of a Coast Guard-accepted program of training. In these cases, the review of your qualifications takes place at the time the Coast Guard approves a course (see reference (b)), or during an audit conducted under a quality standards system (see reference (c)).

c. The following questions and answers provide information on Designated Examiners.

(1) *What is a Designated Examiner?*

The term "Designated Examiner" is defined in regulations 46 CFR 10.103 and 46 CFR 12.01-6 as meaning "a person who has been trained or instructed in techniques of training or assessment and is otherwise qualified to evaluate whether a candidate for a license, document, or endorsement has achieved the level of competence required to hold the license, document, or endorsement. This person may be designated by the Coast Guard or by a Coast Guard-approved or accepted program of training or assessment."

A Designated Examiner assesses the ability of an individual to perform a task, duty or responsibility properly, using established criteria and professional judgment in determining whether an acceptable level of proficiency and competence has been demonstrated. A Designated Examiner must always personally witness the performance of the task, duty or responsibility by the person whose competence is to be assessed. This performance is called a "practical demonstration" which is defined in regulations 46 CFR 10.103 and 46 CFR 12.01-6 as meaning "the performance of an activity under the direct observation of a Designated Examiner for the purpose of establishing that the performer is sufficiently proficient in a practical skill to meet a specified standard of competence or other objective criterion." For purposes of assessment of competence of a skill or ability required for an STCW endorsement, the assessment criteria are set out in the standards of competence contained in the tables in the STCW Code.

(2) *How can I become a Designated Examiner?*

To become a Designated Examiner you must have documentary evidence to establish that you:

- have experience, training or been instructed in assessment techniques;
- are qualified in the task for which the assessment is being conducted; and

- hold the level of license, endorsement, or other professional credential required for those who would apply on board a vessel the relevant level of knowledge, skills and abilities to be assessed.

Documentary evidence of training or instruction may be in the form of performance evaluations which include an evaluation of effectiveness in on-the-job conduct of assessment activities; and/or a certificate of successful completion from a "train-the-trainer" course. A train-the-trainee course must be based on IMO model course 6.09 (Training Course for Instructors) or another Coast Guard-accepted syllabus which covers the following areas:

- identification of training needs;
- learning processes;
- course design;
- teaching methods;
- recognition of individual capacity;
- identification of performance standards;
- presentation techniques and use of media;
- assessment of knowledge;
- assessment of skills and abilities;
- measurement of progress toward training objectives and of adequate performance;
- favorable and unfavorable conditions for learning and assessment;
- the role of incentive and motivation in learning;
- use of feedback for performance improvement;
- and course evaluation.

Special instruction or experience involving use of simulators in assessment is necessary if the Designated Examiner is to use simulators when conducting assessments.

A specialist in a particular field of non-maritime education (such as mathematics or first aid), is not required to hold a maritime license or document to conduct assessment in that field. A specialist is someone whose expertise, experience and current practice are concentrated within a particular subject matter.

A faculty member employed at a State maritime academy or the U.S. Merchant Marine Academy operated in accordance with 46 CFR Part 310 and instructing in a navigation or engineering course is qualified to serve as a Designated Examiner in their area(s) of specialization without individual evaluation by the Coast Guard. This reflects the fact that faculty members at these institutions undergo a rigorous evaluation process before being employed as instructors.

(3) *Does use of a simulator in training or assessment activities affect the requirements I must meet to become a Designated Examiner?*

Yes. If a simulator is used, you must gain practical assessment experience on the particular type of simulator being used under the supervision and to the satisfaction of an experienced assessor, and receive guidance in instructional techniques involving the use of simulators. Such guidance or instruction should include development of and sequencing of simulated scenarios which have specific assessment objectives and which ensure that a mariner's performance can be measured against the relevant assessment criteria.

(4) *Is it necessary for the Coast Guard to certificate me as a Designated Examiner?*

No, a Coast Guard Certificate or Letter is not required. You may be identified as a Designated Examiner as part of a Coast Guard course approval or as part of a Coast Guard-accepted program of training and assessment. In these cases, the review of your qualifications takes place at the time the Coast Guard approves a course (see reference(b)), or during an audit conducted under a quality standards system (see reference (c)).

However, if you have a certificate of completion from a "train-the-trainer" course approved by the Coast Guard or based on IMO Model Courses or other Coast Guard-accepted training program, and have evidence that you have at least 36 weeks of experience as an instructor in the maritime field, you may obtain a letter from the Coast Guard stating your special qualification as a Designated Examiner. The letter may be limited to your field of experience. The letter will include a special reference to allow for assessments with certain classes of simulator when there is evidence to support this qualification. Procedures for receiving such a letter are discussed below.

(5) *How can I obtain a Coast Guard letter of qualification as a Designated Examiner?*

You must send a request, along with supporting documentation, to:

Director, National Maritime Center
NMC-4B
4200 Wilson Boulevard, Suite 510
Arlington, VA 22203-1804
Telephone Number: (703) 235-1864/74

Documentation should include:

(a) a certificate of completion from a "train-the-trainer" course which is approved by the Coast Guard or based on IMO Model Courses or other Coast Guard-accepted training program;

(b) evidence that you have at least 36 weeks of experience as an instructor in a maritime field; and

(c) evidence of operational experience relevant to the field of maritime training in which you wish to act as a Designated Examiner. The letter will be limited to your documented field of experience and will include a special reference to allow for assessments with certain classes of simulator when there is documentation to establish this qualification. Enclosure (1) is a sample Letter of Recognition.

(6) *Is there a fee for processing this letter?*

No, there is no application or processing fee for a letter of recognition as a Designated Examiner.

(7) How long will my Coast Guard letter of qualification as a Designated Examiner be valid?

Your letter of recognition is valid for five years. It will be revoked, however, if you sign or initials a statement attesting to an individual's competence without having personally witnessed a practical demonstration of the individual's skill or ability, which in your professional judgment, meets an acceptable level of performance.

(8) *What must I do to renew my letter of recognition?*

To renew your letter of recognition, you must submit evidence of your most recent experience as a Designated Examiner, and of your continued ability to assess the competence of merchant mariners in the appropriate fields of maritime training.

(9) *Can I serve as both a Qualified Instructor and Designated Examiner?*

Instruction and assessment are separate activities. The regulations in 46 CFR Parts 10 and 12 do not prohibit you from conducting both activities. It is essential, however, for you to :

(a) be qualified as both a Qualified Instructor and a Designated Examiner, and

(b) for you to maintain clear separation between activities conducted to meet learning objectives, and activities conducted for the purpose of assessing competence in a skill or ability.

Routine tests, quizzes, examinations, problems, and practical exercises conducted to assess student progress during an on-going training program are not considered assessments of competence for the purposes of meeting a regulatory qualification and may be given by a Qualified Instructor.

5. ACTION. OCMI's should use this circular as guidance for oversight of training and assessment programs offered in their zone.

R. C. NORTH
Rear Admiral, U.S. Coast Guard
Assistant Commandant for Marine
Safety and Environmental Protection

Encl: (1) Sample of Letter of Recognition

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United States Coast Guard

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Phone: (703202) 267-0214
Fax: (703)235-1062

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LETTER OF RECOGNITION
DESIGNATED EXAMINER

Individual's name
Address
Address
City, State ZIP

Dear :

Your credentials have been evaluated and the Coast Guard has determined that you are qualified for recognition as a "designated examiner" in accordance with Navigation and Vessel Inspection Circular XX-97. Your qualifications are subject to the conditions set out below.

You are entitled to conduct assessments of individual competence in the following areas of maritime training:

[Enter name of course or training and assessment program and code used for identifying the course or program in the Coast Guard records system.] [Add any special qualification for using a type of simulator for assessment, if applicable

As merchant mariners must now demonstrate their competency in a host of areas to obtain an STCW certificate or endorsement, and, eventually, a Coast Guard license or document, the U.S. Coast Guard is placing a good deal of trust in your professional competence, judgment and behavior.

In performing your function as a designated examiner, you may only use your signature or initials to indicate you have personally witnessed the demonstration of a skill or ability by the person being assessed and have found that individual, in your professional judgment, to be competent under the relevant criteria and using good professional judgment. This letter will be revoked if you sign or initial a statement attesting to an

individual's competence without having personally witnessed a practical demonstration of the individual's skill or ability, which in your professional judgment, meets an acceptable level of performance.

When acting as a designated examiner to meet a regulatory requirement, you should include in the record of assessment your full name as well as an identification number using the first three digits of your last name and the date of issue of this letter (i.e., [insert first three digits of addressee's last name and the date of the letter as: XXXmmddyy].

This letter is valid for five years. At the time of renewal you should be prepared to submit evidence of your continued ability to assess the competence of merchant mariners in the above identify fields of maritime training in accordance with NVIC X-97.

We greatly appreciate your willingness to serve as a designated examiner. This role is critical to maintaining high professional standards among U.S. merchant mariners.

Sincerely,

Director, National Maritime Center
By direction

U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: NMC
Phone: (202) 493-1022
Fax: (202) 493-1060

COMDTPUB 16700.4
NVIC 9 01
NOV 30 2001

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 9 01

Subj: GUIDANCE ON STCW QUALITY STANDARDS SYSTEMS (QSS) FOR MERCHANT MARINER COURSES OR TRAINING PROGRAMS

1. PURPOSE.
   a. This NVIC provides information for organizations that wish to serve as a QSS on behalf of the U. S. Coast Guard.
   b. Training and assessment activities required by the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) must be monitored as part of a QSS. The U. S. Coast Guard's course-approval process described in Title 46, Code of Federal Regulations (46 CFR), section 10.302 and the oversight program described in Commandant Instruction 16721.1, *Standards for Oversight of Licensing and Seaman's Certification Activities,* comprise the U. S. Coast Guard's QSS for training courses or programs required by the STCW.

2. ACTION. Officers in Charge, Marine Inspection should bring this NVIC to the attention of maritime interests within their areas of responsibility. Internally, it will be distributed electronically. It will also be available on the World Wide Web at **http://www.uscg.mil/hq/g-m/nvic/index.htm**.

3. DIRECTIVES AFFECTED. NVIC 7-97, COMDTPUB 16700.4 is superseded and cancelled.

4. BACKGROUND.
   a. In 1993, the International Maritime Organization embarked on a comprehensive revision of the STCW to reduce human error as a major cause of marine casualties. On July 7, 1995, a conference of Parties to the International Convention on Standards of Training,

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Certification and Watchkeeping for Seafarers, 1978, as amended (STCW) adopted amendments which entered into force on February 1, 1997.

b. The U. S. Coast Guard implemented the 1995 amendments by publishing an interim rule on June 26, 1997, that modified 46 CFR parts 10, 12, and 15 and incorporated the 1995 amendments into the domestic regulations. Title 46 CFR 10.309 and 46 CFR 12.03-1 now require entities offering training required by STCW to be monitored "in accordance with a U. S. Coast Guard-accepted quality standards system."

c. The STCW details the training required for masters, officers and ratings and then broadens its scope to those activities that directly impact that training. It recognizes that training, both on-the job and formal, is an integral and vital part of career development. It acknowledges that on-the-job training has taken place between senior and junior personnel and has been a part of a long-standing maritime tradition. It formally captures training in a training record book or other record of training and establishes responsibilities for companies operating seagoing vessels. It recognizes the criticality of all training, and requires the establishment of criteria for those conducting training and assessing skills. It also requires organizations offering training required by the STCW to be monitored by a QSS, the subject of this NVIC. This function can be accomplished either by the U. S. Coast Guard or by a U. S. Coast Guard-accepted QSS.

5. DISCUSSION.

a. The STCW seeks to ensure the highest standards for functions and processes relating to a mariner's competence. To do this, all training, assessments of competence, certification, endorsement, and revalidation activities regarding STCW certificates must be monitored by a QSS. The U. S. Coast Guard's QSS encompasses the above plus the processes of applying for, obtaining, issuing, upgrading, and renewing a U. S. Coast Guard-issued license or document.

b. The U. S. Coast Guard's course approval system described in 46 CFR 10.302 and NVIC 5-95, *Guidelines for Organization Offering Coast Guard Approved Course*, satisfies the mandatory requirements of the STCW for a QSS in the area of training. However, due to the scope of the STCW's training requirements, the U. S. Coast Guard decided to expand its partnerships with industry. Enclosure (1) lays out the criteria for an entity that seeks acceptance as a QSS to review and monitor training on behalf of the U. S. Coast Guard. These entities will be called U. S. Coast Guard-accepted QSS organizations.

c. The STCW's recommended guidance for a QSS, contained in the STCW Code B-1/8, describes a quality management system paralleling ISO 9000 guidelines. Elements of quality management are part of the guidelines for becoming a U. S. Coast Guard-accepted QSS organization. While these are not mandatory requirements for organizations offering training, the U. S. Coast Guard agrees with the concepts of quality management and has made these recommendations a voluntary option for training organizations.

d. The implementation of the STCW ushered in a number of new concepts and terms. Additionally, the STCW works in concert with the International Safety Management (ISM) Code. These concepts, terms, and interactions are defined and discussed below:

(1) ***QUALITY STANDARDS SYSTEM (QSS)*** A system that provides for, and ensures through, the acceptance and monitoring of mariner training that such training provides the highest standards of merchant mariner competence. The existing U. S. Coast Guard course approval process is part of the U. S. Coast Guard's overall QSS; it ensures training is designed, offered, and monitored in accordance with the U. S. Coast Guard's standards.

(2) ***U. S. COAST GUARD-ACCEPTED QSS ORGANIZATION*** An organization meeting the standards contained in this NVIC and recognized by the U. S. Coast Guard as competent to act in lieu of the U. S. Coast Guard for the purposes of review, acceptance, and oversight of training courses and programs.

(3) ***ACCEPTED TRAINING*** Training that has been reviewed and accepted by a U. S. Coast Guard-accepted QSS organization will be termed "U. S. Coast Guard-accepted." This training will have the same weight and acceptance as U. S. Coast Guard-approved training within the licensing and documentation process.

(4) ***ON-BOARD TRAINING***

(a) In some areas, the STCW requires on-board training as a requirement for an STCW certificate. An approved or accepted training program that includes on-board training must have the details of the on-board training included in the overall program approval issued by the U. S. Coast Guard or the acceptance by a U. S. Coast Guard-accepted QSS organization.

(b) ISM Code-certified, shipping companies should refer to paragraph 5.f to assess their options. Non-ISM Code-certified shipping companies wishing to offer their crews on-board training creditable toward an STCW certificate must ensure the training conforms to U. S. Coast Guard standards or have it reviewed and accepted by a recognized QSS.

(5) ***QUALIFIED INSTRUCTORS AND DESIGNATED EXAMINERS*** Training and assessments required by the STCW must be conducted by persons trained and qualified to perform these tasks. A qualified instructor is an individual who has been trained or instructed in instructional techniques of training. A designated examiner is an individual who has been trained or instructed in techniques of training and assessment and is qualified to evaluate whether a candidate has achieved the required level of competence. Information about the acceptance of ships' officers serving as assessors of practical skills that can only be completed aboard ship are available on the STCW web site, **http://www.uscg.mil/STCW/s-home.htm**.

e. Enclosure (2) is a list of all training that a QSS may review and accept on behalf of the U. S. Coast Guard. Enclosure (3) is a list of all training reserved for review and approval only by the U. S. Coast Guard. Enclosure (4) lists training required by the STCW, but which does not require either approval or acceptance. New training required by statute, treaty, regulation or new technology will be reviewed by the U. S. Coast Guard to determine which agencies will be authorized to serve as the QSS for such training.

f. The ISM Code also contains requirements for training; however, it does not prescribe specific requirements for the training program. Therefore, a training program simply by

virtue of being under the ISM umbrella may not necessarily meet the STCW criteria. Specifically, the U. S. Coast Guard requires an enhanced level of detail before approving a course as well as periodic oversight by either the U. S. Coast Guard or an organization accepted as a QSS. For a shipping company certified under the ISM Code that wishes to have ISM-required training meet the STCW, it must be approved by the U. S. Coast Guard or accepted by a QSS.

(1) An organization that conducts ISM Code certification on behalf of the U. S. Coast Guard may also serve as a QSS for training if accepted as such in accordance with enclosure (1).

(2) The ISM Code requires newly assigned crewmembers to be familiarized with the vessel to which they are reporting. This ISM Code requirement is identical to STCW regulation I/14. Satisfying the ISM Code for shipboard familiarization also satisfies STCW regulation I/14-1.4. This training does not have to be U. S. Coast Guard-accepted or -approved.

(3) The ISM Code requirement for shipboard familiarization is not sufficiently detailed to meet the requirements for training required by STCW regulation V/1-1.2 (Tanker familiarization). This training must be approved or accepted by a QSS.

(4) STCW regulations V/2-5 and V/3-5 require familiarization training for personnel serving on passenger vessels. This training is not required to be approved or accepted by a QSS, and providing familiarization training is a responsibility of the vessel's operator. ISM Code familiarization training may also meet the STCW's requirements for familiarization training if it covers the areas set forth in the respective sections of part A of the STCW Code.

6. IMPLEMENTATION.

a. All training creditable towards STCW certification must meet standards established by the U. S. Coast Guard, or it must be accepted by a U. S. Coast Guard-accepted QSS organization. The QSS will also monitor that training. In accepting training, the QSS will, at a minimum, ensure the training covers the subject areas in the model courses developed by the International Maritime Organization (IMO) and listed in enclosure (2).

b. Organizations wishing to serve as a QSS, and accept and monitor training on behalf of the U. S. Coast Guard, should apply to the U. S. Coast Guard's National Maritime Center (NMC) in accordance with enclosure (1). An organization submitting an application may not act as a U. S. Coast Guard-accepted QSS until it has received its letter of acceptance. Review of an application to serve as a QSS normally requires 60 to 90 days.

c. Except for the courses listed in enclosure (3), training organizations may elect to have the U. S. Coast Guard or a U. S. Coast Guard-accepted QSS serve as its QSS. Training currently approved by the U. S. Coast Guard retains that approval until its expiration date. At that time, a training organization may either have the training re-approved by the U. S. Coast Guard or accepted by a U. S. Coast Guard-accepted QSS organization.

d. A training organization wishing to switch its QSS must ensure that it receives approval from the organization to which they are switching before the expiration of the current

approval or acceptance. The NMC must be notified in writing of the change and include the name of the new QSS organization, the effective date of the change, and the courses accepted by the new QSS.

e. NVIC 5-95 provides information about the submittal of courses to the U. S. Coast Guard for approval. Courses submitted to a U. S. Coast Guard-accepted QSS organization should conform to the standards established by the U. S. Coast Guard-accepted QSS organization and should encompass the same content as submissions to the U. S. Coast Guard as described in NVIC 5-95.

f. A list of U. S. Coast Guard-accepted QSS organizations is available on the World Wide Web at **http://www.uscg.mil/STCW/m-achome.htm**.

g. U. S. Coast Guard-accepted QSS organizations must be completely independent and may not exercise direct or indirect managerial or financial control through contract or understanding over any training organization for which they serve as the QSS. Likewise, a training organization may not exercise direct or indirect managerial or financial control through contract or understanding over any U. S. Coast Guard-accepted QSS organization that serves as its QSS.

h. A training organization choosing to be monitored by U. S. Coast Guard-accepted QSS organization must grant the QSS the same access granted to the U. S. Coast Guard. A U. S. Coast Guard-accepted QSS organization must have convenient access to all appropriate documents and facilities, and opportunities both to observe all appropriate activities and to conduct confidential interviews when necessary. Arrangements must be such that persons representing the U. S. Coast Guard-accepted QSS organization are not rewarded, directly or indirectly, by the training organization for making any particular observations or for reaching any particular conclusions.

PAUL J. PLUTA
Rear Admiral, U.S. Coast Guard
Assistant Commandant for Marine Safety
and Environmental Protection

Encl : (1) Guidance for becoming a U. S. Coast Guard-accepted QSS organization
(2) Training that may be accepted by a U. S. Coast Guard-accepted QSS
(3) Training that may be approved only by the U. S. Coast Guard
(4) Training that is not required to be approved or accepted

GUIDANCE FOR BECOMING A U. S. COAST GUARD-ACCEPTED QSS ORGANIZATION

1. INTRODUCTION. An organization wishing to become a U. S. Coast Guard-accepted QSS organization must have processes for reviewing, accepting, and monitoring training that is equal or superior to the U. S. Coast Guard's course approval and oversight processes. This enclosure describes the processes an organization must establish to be acknowledged as a U. S. Coast Guard-accepted QSS organization.

2. SUBMISSION REQUIREMENTS. An organization wishing to become a U. S. Coast Guard-accepted QSS organization should send their documentation to:

   Commanding Officer, National Maritime Center (NMC-4B)
   U. S. Coast Guard
   4200 Wilson Boulevard, Suite 630
   Arlington, VA 22203-1804

   Prospective QSS organizations may contact the NMC to discuss the scope and depth of their documentation prior to final submission.

3. ELEMENTS REQUIRED TO BE SUBMITTED FOR REVIEW. The documentation submitted to the U. S. Coast Guard must contain the elements listed below. An organization approved as a recognized classification society in accordance with 46 CFR part 8, subpart B, need not present evidence of compliance with paragraphs 3.a and 3.k below.

   a. Identification of the Organization.

      (1) Name of the organization and its organizational structure. If it is an independent organization, provide an organizational chart of senior management down to the auditor level. If it is part of a larger organization, chart the QSS department and its chain of responsibility up to the Chief Executive Officer and down to the auditor level; and

      (2) Name, address, contact information (telephone and fax numbers and e-mail address), and organizational position of the person who will serve as the point of contact with the U. S. Coast Guard.

   b. Scope and Background of the Organization.

      (1) Areas of maritime training and assessment which the organization wishes to monitor;

      (2) Examples of situations, if any, in which the organization is being employed, or has been employed previously, as the accepting agent for review and acceptance of training and/or assessment activities;

(3) Samples of audits, if any, of training or assessment activities previously completed by the organization; and

(4) Criteria for selection of sub-contractors. A U. S. Coast Guard-accepted QSS organization may use persons not exclusively affiliated with the QSS organization provided such persons are subject to the quality assurance system of the QSS organization.

c. Staffing for the Organization.

(1) Names and qualifications of the individuals who would actually review, accept, and monitor maritime training and assessment, [see 46 CFR 10.309(a)(10)(ii)];

(2) Description of any training given to individuals who will be conducting review, acceptance, and monitoring activities; and

(3) Staffing must be adequate to perform the duties the organization must perform in carrying out review and oversight functions.

d. Support Infrastructure. Include technical and support resources within the organization that support the review, acceptance, and monitoring activities.

e. Submission Guidelines. Provide guidelines required for client organizations to submit courses, assessments, or other functions for review and acceptance. These guidelines should include criteria on course design, instructor/evaluator qualifications, syllabi, equipment, and facilities.

f. Liaison Between the Organization and the NMC. Provide information about on-going liaison between the organization and the NMC. Organizations are urged to allow NMC participation in the development of new, or revision of existing, submission criteria; training review; and acceptance procedures. This will support information exchange between the organization and the NMC. The NMC will send any changes of relevant regulations or instructions to the organization, and the organization must provide to the NMC any changes in its submission criteria or review and acceptance procedures.

g. Review and Acceptance Procedures.

(1) Descriptions of the methods of evaluation of the physical, administrative and infrastructure support aspects of client organizations [see 46 CFR 10.309(a)(2)];

(2) Descriptions of the methods of evaluation of the instructors and designated examiners of a client organization and the maintenance of their records [see 46 CFR 10.309(a)(3), (4) and (7)];

(3) Description of format for accepting training material, including training record books [NOTE: The U. S. Coast Guard has accepted the IMO Model Course format. Any variations from this format must be justified. NVIC 6-97 may be used for guidance on training record books.];

(4) Once training has been accepted, the period of its validity [NOTE: If different for initial acceptance and renewal, state reasons.];

(5) Sample document showing training acceptance;

(6) Descriptions of the methods by which the course acceptance process responds to requests for modification of the training curriculum by a client organization;

(7) Descriptions of the methods by which the course acceptance process responds to requests for changes in instructors or examiners by a client organization;

(8) Descriptions of the methods by which the course acceptance process responds to requests for changes in the physical, administrative, and infrastructure support aspects of a client organization; and

(9) Descriptions of the procedures for renewal of an acceptance of a training course that is nearing expiration.

h. External and Internal Auditing Procedures. Descriptions of the methods of auditing client organizations including:

(1) Specimen forms which will be used in conducting audits (initial evaluation and periodic audits);

(2) Instructions issued to those conducting the audits;

(3) Guidance issued to the client organization to prepare for an announced audit;

(4) Procedures used when a client organization is either unable to pass an initial evaluation or is found not to comply with established procedures during a periodic audit. This should include disenrollment procedures;

(5) Procedures for following up on deficiencies;

(6) Sample report for submitting audit results to the client organization and the NMC. These reports must be submitted within 30 days of completion of the audit [46 CFR 10.309(a)(11)]; and

(7) Frequency of audits.

i. Record Keeping. Address the records required for internal and external audits. Record keeping requirements for the training organization must ensure compliance with 46 CFR 10.309(a)(9).

j. Contractual Relationship with Training Organizations. Provide a specimen agreement(s) used to establish a contractual relationship between a client organization and the QSS organization. This agreement should ensure compliance with 46 CFR 10.309(a)(10)(i) and (ii) in that it contains a binding commitment to provide access to:

(1) Training sites, syllabi, material, aids, manuals, equipment, and facilities;

(2) Instructor qualifications and evaluations;

(3) Designated examiner qualifications and evaluations;

(4) Examination and assessment protocols;

(5) Student records; and

(6) Relevant administrative policies and procedures including, but not limited to, student admission requirements, staff recruitment and appraisal, and functions of, or performed by, subcontractors.

The agreement(s) must also ensure:

(7) Adequate opportunities for visiting the training facility, observing activities, and discussing training and assessment activities with students, instructors, assessors and administrators. This includes the freedom to make unannounced audits;

(8) Unconditional release of information to be included in the audit report submitted to the U. S. Coast Guard;

(9) Complete independence for those performing audit activities and report preparation;

(10) Adequate procedures for removing acceptance from specific training or functions that have documented deficiencies [NOTE: 46 CFR 10.309(c) describes procedures for removal of specific training acceptance through a U. S. Coast Guard appeal process and may be incorporated into the contractual agreement. However, the procedure in 46 CFR 10.309(c) does not preclude a U. S. Coast Guard-accepted QSS organization from describing its own terms for removal of specific training acceptance.];

(11) Procedures for dis-enrolling a client organization from acceptance; and

(12) Procedures for addressing grievances between a client organization and the U. S. Coast Guard-accepted QSS organization. This should include an appeal process.

k. Quality Commitment. Provide evidence of a firm commitment to the operation of a high quality organization. Commitment of senior management is critical to the success of quality management. Organizations that are ISO 9000 certified already demonstrate this commitment, and proof of ISO 9000 certification will satisfy this requirement. The breadth and scope of the elements in a quality management system are dependent upon the

objectives, methods, and administrative practices unique to an organization. This commitment can be demonstrated by establishing a quality management system that includes the following key elements:

(1) Quality Policy – Senior management must clearly articulate and document its quality policy. As all employees impact the quality of the acceptance and monitoring of training, this policy must be understood by all members of the organization.

(2) Responsibility and Authority – The personnel who manage and perform work affecting the quality of the monitoring function (review, acceptance, and auditing) should be identified. Adequate authority should be delegated to individuals to allow them to identify, record, and resolve problems within their areas of responsibility.

(3) Management Representative – Management shall appoint an individual to ensure that the quality practices are established, implemented, and maintained. This individual is the recommended choice for liaison with the U. S. Coast Guard.

(4) Management Review – Management should review the effectiveness of the quality management efforts at routine intervals and make appropriate revisions when necessary. The scope and timetable for these internal quality assurance reviews should be established between management and the U. S. Coast Guard. In no case should it be less than twice in five years with a minimum of two years between reviews. The review should include:

(a) The organizational structure (monitoring and support systems), including the adequacy of staffing and resources;

(b) How well quality management is being implemented;

(c) Reviews of information about customer satisfaction, internal feedback, evaluation results, assessment criteria and documented improvements;

(d) A listing of discrepancies and a plan of action for correcting them; and

(e) Conclusions and recommendations for improving the effectiveness of the organization.

(5) Documentation of Quality Management Procedures – A quality management system includes the organizational structure, responsibilities, procedures, and resources which ensure quality monitoring. The range and detail of these procedures are dependent upon the complexity of the work, the methodology used, and the skill and training required by the personnel carrying out the activity. These procedures should be documented in a quality manual as set forth in ISO standard 10013, *Guidelines for Developing Quality Manuals.* It is recommended that the QSS organization consult the U. S. Coast Guard on the scope of their quality management implementation prior to final drafting of the quality manual.

(6) Document and Data Control – Clear identification of what is to be controlled, and who is responsible for controlling the approval, issue, distribution, modification, and administration of documentation, including the removal of obsolete documents. This applies to internal and external documents.

(7) Assessment of Sub-Contractors – Clear identification of how sub-contractors are chosen. This should include a review of previous performance in supplying similar products or services, and assessment of the supplier's commitment to quality, and periodic review of supplier performance.

(8) Process Control – The characteristics that are most critical to the quality of the monitoring-of-training function should be identified and controlled. The includes the procedures for reviewing, accepting, and auditing training.

(9) Oversight Issues – Procedures should be established and maintained to determine when the monitoring-of-training function is not in conformance. This involves the performance of those individuals who review, accept, and audit training. It should address how deviations from standards are identified and what corrective actions must occur.

(10) Records – Records should be maintained to demonstrate effective operation of quality management. This includes audit records, training submissions and their evaluations/responses, auditor qualifications, and auditor-training.

(11) Training – Establish and maintain documented procedures for identifying training needs and providing training for all personnel performing activities affecting quality.

(12) Code of Ethics – The organization should be governed by the principles of ethical behavior contained in a published Code of Ethics. This Code should recognize the inherent responsibility associated with this delegation of authority.

4. COURSE/TRAINING PROGRAM IDENTIFICATION. When an organization receives approval as a U. S. Coast Guard-accepted QSS organization, it will be given a unique identifier to be used when identifying the courses it accepts. Details for complete course identification will be provided when an organization is approved.

5. U. S. COAST GUARD NOTIFICATION. U. S. Coast Guard-accepted QSS organizations must notify the NMC of the training they have accepted within 14 days of the acceptance date. The notification must include the name and address of the client institution, the course's title, the STCW or regulatory requirement the course meets, and a one-paragraph description of the course's content.

6. CHANGE OF OWNERSHIP. Any time a U. S. Coast Guard-accepted QSS organization changes ownership, the new senior management of the organization must, within 90 days of the change of ownership, reconfirm the processes and organization used to conduct acceptance of merchant mariner training. Failure to reconfirm with the NMC within 90 days of the change of ownership will result in the disenrollment of the organization as a U. S. Coast Guard-accepted QSS organization.

7. REQUIRED AUDITS OF U. S. COAST GUARD-ACCEPTED QSS ORGANIZATIONS.

   a. Internal Quality Assurance Reviews. An organization must conduct internal quality assurance reviews (audits) not less than twice in five years with a minimum of two years between reviews. Record keeping requirements and reporting formats for these reviews should be established by the organization.

   b. Independent Evaluations – Each U. S. Coast Guard-accepted QSS organization will be audited at least once every five years by the NMC. Continued service as a U. S. Coast Guard-accepted QSS organization is contingent upon satisfactory results of these audits. Audit procedures are available from the NMC. The U. S. Coast Guard will send the audit results to the QSS organization within 60 days of the completion of the audit. Audit results should be kept with the organization's original approval letter.

8. REQUIRED REPORTS.

   a. Internal quality assurance reviews – Results of the internal quality assurance reviews must be submitted to the NMC within 60 days of their completion.

   b. Independent evaluations – Results of an independent evaluation done by the NMC will be available to the audited organization within 60 days of the completion of the audit.

   c. U. S. Coast Guard-accepted QSS organization audits – Results of audits of client organizations conducted by the QSS organization must be submitted to the NMC within 30 days of completion of the audit [46 CFR 10.309(a)(11)].

9. U. S. COAST GUARD OVERSIGHT.

   a. Oversight is integral to ensuring the integrity of this program. The U. S. Coast Guard reserves the right to audit training organizations that are served by U. S. Coast Guard-accepted QSS organizations in the same way it audits the client organizations for which it provides course approval.

   b. The U. S. Coast Guard will provide in writing the results of its audits of client organizations that are served by U. S. Coast Guard-accepted QSS organizations to both the client organization and the U. S. Coast Guard-accepted QSS organization.

10. ENROLLMENT AS A U. S. COAST GUARD-ACCEPTED QSS ORGANIZATION. Once an organization has been approved as a U. S. Coast Guard-accepted QSS organization, it will receive a letter from the NMC granting it the authority to accept the training listed in this NVIC for which it qualifies. No organization may act as a U. S. Coast Guard-accepted QSS organization until it has received its letter of acceptance.

11. DISENROLLMENT AS A U. S. COAST GUARD-ACCEPTED QSS ORGANIZATION.

   a. Voluntary–A U. S. Coast Guard-accepted QSS organization must give each client organization it serves a 180-day notice of its intention to disenroll the client organization

as a U. S. Coast Guard-accepted QSS organization. This enables the client organization time to take the necessary steps to have their training accepted by another U. S. Coast Guard-accepted QSS organization or approved by the NMC.

b. Involuntary-If the U. S. Coast Guard determines that a U. S. Coast Guard-accepted QSS organization is not meeting its obligations, the NMC will notify the organization in writing and enclose information about the events that led to this determination. The organization will then have a specified period to correct the deficiencies or appeal the conclusions to the Director of the Field Activities Directorate (G-MO) in U. S. Coast Guard Headquarters. If the organization appeals and the appeal is denied, or the deficiencies are not corrected within the allotted time, the NMC will disenroll the organization from the list of U. S. Coast Guard-accepted QSS organizations. The NMC will notify all client organizations affected by this decision so that they may make arrangements to transfer to another U. S. Coast Guard-accepted QSS organization or seek NMC approval for their training. This transfer must take place within 180 days of notification that their U. S. Coast Guard-accepted QSS organization has been disenrolled.

TRAINING THAT MAY BE ACCEPTED BY A COAST GUARD-ACCEPTED QSS

TRAINING FOR INDIVIDUAL CERTIFICATION

NAME OF TRAINING	STCW REF.	COMMENTS
Automatic Radar Plotting Aid (ARPA)	A-II/1 A-II/2	Required by deck officers serving on vessels equipped with ARPA. A CG-accepted QSS may approve a course if the simulator(s) conforms to STCW standards and the protocol developed by the Coast Guard's Research and Development Center.[1] IMO model course 1.07
Bridge resource management (i.e., bridge team training)	A-II/1 A-II/2	Completion of formal training course is not required by STCW; however, many deck officers elect to complete a course in lieu of on-the-job training.
Global Maritime Distress and Safety System (GMDSS)	A-IV/2	Required for deck officers on vessels equipped with GMDSS systems. IMO model courses 1.25 and 1.26
Medical first aid provider	A-VI/4-1	IMO model course 1.14
Person in charge of medical care	A-VI/4-2	Required for applicants as officer in charge of a navigational or engineering watch. IMO model course 1.15
Proficiency in survival craft and rescue boats other than fast rescue boats/lifeboatman	A-VI/2-1Reg VI/	Required for able seaman (AB) endorsement where service is not limited to non-lifeboat equipped vessels; applicants for lifeboatman endorsements; and applicants for certification as an officer in charge of a navigational or engineering watch. All applicants for lifeboatman must meet standards for proficiency in survival craft. See 46 CFR 12.10. IMO model course 1.23
Proficiency in fast rescue boats	A-VI/2-2	See NVIC 3-00
Radar observer	A-II/1; A-II/2	See 46 CFR 10.305 and 15.815. Course may be accepted if simulator(s) conforms to STCW standards and the protocol developed by the Coast Guard's Research and Development Center.[1] Courses using other simulators must be approved by the U. S. Coast Guard. IMO model courses 1.07, 1.08, and 1.09
Rating forming part of an engineering watch	A-III/4	Required for applicants for a qualified engineering watchstanding rating.
Rating forming part of a navigational watch	A-II/4	Required for applicants for an AB endorsement.
Signaling	A-II/1	
Training program for officer in charge of a navigational watch	A-II/1	IMO model course 7.03
Training program for officer in charge of an engineering watch	A-III/1	IMO model course 7.04

Note 1. Available from the National Maritime Center (NMC-4B)

TRAINING THAT MAY BE ACCEPTED BY A COAST GUARD ACCEPTED QSS

VESSEL SPECIFIC TRAINING

NAME OF TRAINING	STCW REF.	COMMENTS
TRAINING FOR PERSONS SERVING ON TANKERS[2]	A-V/1	Formal training is also required for persons serving on vessels not subject to the STCW. See 46 CFR part 13. IMO model courses 1.01, 1.02, 1.04, and 1.06
Tankerman - PIC - DL		See 46 CFR 13.121 and STCW A-V/1 paragraphs 8 - 21
Tankerman - PIC - LG		See 46 CFR 13.121 and STCW A-V/I paragraphs 22 - 34
Tankerman assistant - DL or LG		See 46 CFR 13.121 and STCW A-V/I paragraphs 1 - 7
Tankerman engineer - DL or LG		See 46 CFR 13.121
TRAINING FOR CERTAIN PERSONS ON RO-RO PASSENGER SHIPS	A-V/2	The four subordinate elements of required training are listed. See STCW cite to determine which personnel are required to complete each element of training
Crowd management		IMO model course 1.29
Safety training		IMO model course 1.29
Passenger safety, cargo safety, and hull integrity training		IMO model course 1.28
Crisis management and human behavior		IMO model course 1.28
TRAINING FOR CERTAIN PERSONS ON PASSENGER SHIPS OTHER THAN RO-RO PASSENGER SHIPS	A-V/3	The four subordinate elements of required training are listed. See STCW cite to determine which personnel are required to complete each element of training
Crowd management		IMO model course 1.29
Safety training		IMO model course 1.29
Passenger safety		IMO model course 1.28
Crisis management and human behavior		IMO model course 1.28

Note: 2 PIC is person-in-charge; DL is dangerous liquid; LG is liquefied gas

TRAINING THAT MAY BE ACCEPTED BY A COAST GUARD-ACCEPTED QSS

OTHER REQUIRED TRAINING

NAME OF TRAINING	STCW REF.	COMMENTS
BASIC SAFETY TRAINING		Comprises the following four training elements
Personal survival techniques	A-VI/1-1	IMO model course 1.19
Personal safety and social responsibility	A-VI/1-4	IMO model course 1.21
Elementary first aid including CPR	A-VI/1-3	IMO model course 1.13
Fire Prevention and firefighting	A-VI/1-2	IMO model course 1.20

TRAINING THAT MAY BE APPROVED ONLY BY THE U. S. COAST GUARD

NAME OF TRAINING	STCW REF.	COMMENTS
Radar observer	A-II/1; A-II/2	See 46 CFR 10.305 and 15.815 Courses in which the simulators do not meet either the STCW's standards or the protocol developed by the U. S. Coast Guard's Research and Development Center must be approved by the U. S. Coast Guard.
Any training for which sea service credit is given for completion of the training		
Any training that substitutes in whole or in part for a professional examination		Does not include signaling.
Firefighting - advanced	A-VI/3	Required for applicants as officer in charge of a navigational or engineering watch. IMO model course 2.03
Firefighting - basic for tankerman	V/1	See 46 CFR 13.121 for the scope of this training. IMO model course 1.20

REQUIRED TRAINING THAT IS NOT REQUIRED TO BE APPROVED OR ACCEPTED

NAME OF TRAINING	STCW REF.	COMMENTS
Familiarization training	A-VI/	See STCW A-I/14 and 46 CFR 15.1105
Training for persons serving on Ro-Ro passenger ships and passenger ships other than Ro-Ro passenger ships	A-V/2 paragraph 2 A-V/3 paragraph 2	All training for persons serving on passenger ships other than that specified in the reference must be approved or accepted.

IMPORTANT - DISCLAIMER

The following document has been edited by the NOAA Small Boat Safety Program.

THE DOCUMENT IS BEING PROVIDED FOR THE SOLE PURPOSE AS A REFERENCE FOR THE 2003 NOAA SMALL BOAT WORKSHOP ATTENDEES.

The document has been edited to remove extraneous information which is not applicable to workshop discussions.

The document may be NOAA policy, draft NOAA policy, or the policy, guidelines, standards, instructions, procedures, or orders of other public agencies or professional boating interests.

Every effort has been made to ensure that the following document is correct and current.

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4 JANUARY 2002

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 3 02

Subj: GUIDELINES FOR ASSESSMENT OF MERCHANT MARINERS' PROFICIENCY IN SURVIVAL-CRAFT OR RESCUE-BOATS THROUGH DEMONSTRATIONS OF SKILLS

Ref: (a) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW), Regulation VI/2 and Section A-VI/2 of STCW Code, incorporated into regulations at 46 CFR 12.01-3
(b) Federal Register dated May 3, 2000, Docket No. USCG-2000-7288-1, Guidelines for Assessing Merchant Mariners' Proficiency Through Demonstrations of Survival-Craft Skills
(c) Guidelines for Assessing Merchant Mariners' Proficiency Through Demonstrations of Survival-Craft Skills, Docket No. USCG-2000-7288, Available at: http://dms.dot.gov

1. PURPOSE. This Circular provides the national performance assessment guidelines for the assessment of merchant mariners' proficiency through demonstrations of survival-craft or rescue-boat skills. These guidelines are for use in training programs approved or accepted by the Coast Guard as meeting reference (a) and by designated examiners (DEs) when carrying out their assessments.

2. ACTION. Officers in Charge, Marine Inspection (OCMIs), should use this Circular when establishing that candidates are entitled to hold STCW-95 certificates attesting proficiency in either survival-craft or rescue-boat skills. OCMIs should also bring this Circular to the attention of the appropriate people in the maritime industry within their zones. This Circular is available on the World Wide Web at **http://www.uscg.mil/hq/g-m/nvic/**. Within the Coast Guard, it will be distributed by electronic means only.

DISTRIBUTION – SDL No. 137

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NON-STANDARD DISTRIBUTION: See Page 3

3. DIRECTIVES AFFECTED. None.

4. BACKGROUND.

   a. The guidance from the International Maritime Organization (IMO) on shipboard assessments of proficiency, MSC/Circular 853, suggests that administrations should develop standards and measures of performance for practical tests as part of a program of training and assessment of mariners. These standards and measures ensure that mariners will be uniformly assessed without regard to individuality of the DEs and will result in standardization, fairness, and consistency. Enclosure (1) provides an overview of the Coast Guard's policy on assessments of mariners as required by the STCW.

   b. The Coast Guard tasked the Merchant Marine Personnel Advisory Committee (MERPAC) to make recommendations for national assessment criteria for certification attesting proficiency in either survival-craft or rescue-boat skills. The National Maritime Center (NMC) then used MERPAC's recommendations to develop proposed national guidelines which were published for public comment in references (b) and (c). There was one response to the request for public comment. MERPAC's recommended guidelines included "knowledge" competencies not included within the national guidelines. The national guidelines focus solely on the practical demonstrations of a mariner's competency. As a result of this process, the final version of the national guidelines contained in enclosures (2) and (3) came about.

5. DISCUSSION.

   a. All merchant mariners who commence training or sea service required by the STCW on or after August 1, 1998, or all merchant mariners applying for STCW certification attesting proficiency in either survival-craft or rescue-boat skills on or after February 1, 2002, are required by 46 CFR 12.10-5(d) or 12.10-9(a) to present documentation demonstrating competence in those skills specified in the appropriate tables of enclosures (2) or (3). The practical demonstrations of skills must otherwise be completed in the presence of, and certified by, a DE. Unless a mariner demonstrates proficiency in the survival-craft or rescue-boat skills required in either enclosure (2) or (3), the OCMI will not issue the STCW certification,

   b. A person assessing mariners for STCW certification attesting proficiency in either survival-craft or rescue-boat skills should use the guidelines in either enclosure (2) or (3) or an alternative as discussed in paragraph 5. c when assessing practical demonstrations of proficiency.

   c. Those who assess the proficiency of mariners may refine these published guidelines and develop innovative alternatives; however, any deviations from these guidelines must be submitted to the NMC for Coast Guard approval before use. A training institution submitting a course that leads to certification attesting proficiency in survival-craft or rescue-boat skills should either state that the guidelines in enclosure (2) or (3) will apply or otherwise identify the guidelines to be used.

d. Merchant mariners required to demonstrate proficiency through demonstrations of either survival-craft or rescue-boat skills should use these guidelines for self-study and self-assessment.

PAUL J. PLUTA
ASSISTANT COMMANDANT FOR MARINE
SAFETY & ENVIRONMENTAL PROTECTION

Encl: (1) Assessments of Mariners
(2) Assessment Guidelines for Table A-VI/2-1, Proficiency in Survival-Craft Skill Demonstrations
(3) Assessment Guidelines for Table A-VI/2-1, Proficiency in Rescue-Boat Skill Demonstrations

Non-Standard Distribution:

B:a G-M(1); G-MS(1); G-MSO (4)

D:l CG Liaison Officer MILSEALIFTCOMD (Code N-7CG) (1); CG Liaison Officer MARAD (MAR-720.2) (1).

ASSESSMENTS OF MARINERS

1. ASSESSMENT OF SKILLS.

   a. All mariners who commence training or sea service required by the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW), on or after August 1, 1998, or all mariners who apply for STCW certification attesting proficiency in survival-craft or rescue-boat skills on or after February 1, 2002, must demonstrate to a designated examiner (DE) minimum competency in certain knowledge, understandings, and proficiencies. Without evidence to this effect, no endorsement will be issued.

   b. Traditionally, in the United States, the Coast Guard has measured mariners' competency through assessments of knowledge. Knowledge-based components of this competency usually involve the recalling of facts or concepts, and written examinations are normally valid and reliable instruments for assessing such components. Historically, the Coast Guard has issued licenses and documents based predominantly on written essay and multiple-choice examinations. Currently, the Coast Guard employs a bank of over 25,000 multiple-choice questions to examine mariners.

   c. Assessment of understanding is more complex than assessment of knowledge. Understanding involves specific principles and information processes necessary to analyze alternatives, make conclusions, make choices and decisions, or affect outcomes. Because it is a covert characteristic, understanding must be ascertained through assessment of an overt behavior that demonstrates understanding. Ascertainment can employ a variety of mechanisms, ranging from written problems involving calculations or analysis of facts to practical demonstrations requiring diagnostic or analytical reasoning. Many of the Coast Guard's 25,000 written questions for multiple-choice examinations involve problems that assess an understanding; but, in many instances, complete understanding is best measured through actual assessment of a mariner's performance.

   d. Guidance provided by the IMO on certain assessments of proficiency requires development of standards and measures of performance for practical tests as part of seafarers' training programs. This is a new requirement for many flag-state administrations and their maritime industries. Performance assessment is part of a larger, well established body of knowledge called instructional system design (ISD). Within this body, assessment methodologies range from the simple and straightforward to the complex and difficult. For the purposes of STCW, the Coast Guard believes the simplest and most straightforward approach works best and has decided to develop a set of national guidelines. In these, a performance standard has three components: the condition, the behavior, and the criteria. The first establishes the conditions under which the candidate must demonstrate the knowledge, understanding or proficiency.

The second specifies the precise set of knowledge, understandings, or skills (the 'behaviors') that must be recalled, demonstrated or performed. The third is the particular acts against which we measure an applicant's behavior to determine if the performance can be considered minimally competent.

e. The third component is normally expressed in terms of "measures" or combinations of "measures," such as a time limit or requirement, a specific sequence, a number or a percentage, a tolerance, or a degree of conformance or accuracy required. For highly critical skills, the criteria may require precise answers, require exact sequences of actions, or have very small tolerances of errors or degrees of conformance. For instance, missing just one step of a sequence may constitute failure because that step was critical to achieving the final outcome. In less-critical skills, wider tolerances or degrees of conformance may pass; however, in every case the applicant must demonstrate the minimal level of competence set forth in the criteria.

2. DEVELOPMENT OF STANDARDS.

a. While the STCW Code gives broad guidance on the standards of performance and methods of assessment, the responsibility for the development of specific performance standards for each competency lies with the training provider. Development of valid and reliable performance standards is a resource-intensive effort. To minimize cost to the industry, promote uniformity, expedite the development process, and provide valid examples of these new performance standards, the Coast Guard asked that the Merchant Marine Personnel Advisory Committee (MERPAC) develop recommendations for a set of these standards.

b. MERPAC developed the core elements of a set of these standards and forwarded them to the Coast Guard. We reviewed the initial recommendations and compared them to the requirements of the STCW. We incorporated the final products into the proposed national assessment guidelines and published them in the Federal Register for public comments. After considering the comments, we have made them the standards for identifying minimum levels of competence during demonstrations of a mariner's proficiency.

c. We encourage companies and maritime training institutions to use the national guidelines for assessment of STCW proficiencies in training programs submitted for our approval or for acceptance by a recognized quality-standards system. They should use them during STCW proficiency assessments conducted by their DEs. They may develop alternative assessment standards; however, they may not use these in accepted or approved training programs until we have reviewed and approved them.

3. WRITTEN EXAMINATIONS.

a. Written examinations used in training programs under the STCW deserve particular emphasis. Companies and maritime training institutions should review their written instruments for assessing each knowledge-based and understanding-based competency from the STCW to ensure they include at least one question for each competency in the appropriate table from Part A of the STCW Code.

b. Companies and maritime training institutions should also have multiple questions for addressing each knowledge-based and understanding-based competency from the STCW to afford candidates a fair opportunity to demonstrate minimum ability. If only one question assessed a required knowledge or understanding, an incorrect answer would constitute a failure to have demonstrated the knowledge or understanding and would leave the candidate ineligible to have that competency certified by the DE, unless the DE used an alternative method. Accordingly, it would be preferable for the assessment to contain several questions. For example, in a written multiple-choice examination, if four questions concerned the same critical knowledge, three correct answers and one incorrect answer would meet the requirements for minimum competency if the performance standard was a 70% score. In this case the mariner would qualify as competent for that knowledge.

Assessment Guidelines for TABLE A-VI/2-1

Proficiency in Survival-Craft Skill Demonstrations

Skills that must be demonstrated:

1. Give correct commands for launching and boarding a survival-craft
2. Prepare and safely launch a survival-craft
3. Safely recover survival-craft
4. Start and operate a survival-craft engine
5. Steer (command) a survival-craft under oars
6. Row a survival-craft
7. Use of survival-craft equipment
8. Rig devices to aid location

Knowledge based competencies may be assessed through a written multiple-choice examination. The student must achieve a minimum-passing grade of 70%.

Skill demonstrations

As part of an approved Proficiency in Survival-Craft course, students must meet the standards of competence set out in STCW Code Table A-VI/2-1. Each student must perform each required demonstration.

Using actual equipment, students must correctly demonstrate the skills listed above. The students will demonstrate their ability to steer (command) a lifeboat under oars and carry out rowing commands in a survival-craft. Students steering the lifeboat will demonstrate getting underway, steering a straight course, turning to port in the shortest possible distance, turning to starboard in the shortest distance, stopping, and going astern while steering as straight a course as possible using both rudder and oars. For candidates for proficiency in survival-craft other than fast rescue-boats who serve on vessels that don't carry lifeboats, the assessment criteria should be modified as required to evaluate the launch, operation, and recovery of rescue-boats. Assessment guidelines for launching and recovery of rescue-boats are included here. If candidates only demonstrate the launching and recovery of rescue-boats other than fast rescue-boats, the certificate issued will be restricted to service on vessels that are not required to carry lifeboats. The assessment guidelines for rescue-boats follow those for lifeboats.

1. DEMONSTRATION: Give correct commands for launching and boarding a survival-craft

Given a lifeboat properly stowed on a gravity davit system, when hearing the abandon ship signal or the order to lower the lifeboat, the student will give the correct commands to launch the boat.

Following each performance objective is the same expression in a columnar format:

STCW competence	Knowledge, understanding and proficiency (KUP)	Performance Condition	Performance Behavior	Performance Standard
Take care of a survival-craft during and after launch.	Command launching the lifeboat.	Using a lifeboat properly stowed on gravity davits, when hearing an abandon ship signal or the order in English to lower the lifeboat,	the candidate will command launching the boat.	1. Commands were issued in proper sequence. 2. All tasks to launch the boat were verified. 3. The boat was launched in ten minutes.

If the candidate properly carries out all the tasks listed, and launches the lifeboat in ten minutes, he or she passes. If the candidate fails to properly carry out any task, or fails to launch the boat in ten minutes, he or she fails the practical examination. If the candidate fails, he or she should receive remedial training and be re-examined.

2. DEMONSTRATION: Prepare and safely launch a survival-craft

Given a lifeboat properly stowed on a gravity davit system, when given orders to perform tasks necessary to prepare and launch a lifeboat, the candidate will correctly perform the tasks.

STCW competence	Knowledge, understanding and proficiency (KUP)	Performance Condition	Performance Behavior	Performance Standard
Take care of a survival-craft during and after launch.	Launch the lifeboat.	Using a lifeboat properly stowed on gravity davits,	the candidate will perform the following tasks: 1. ready the boat for launch; 2. pass the sea painter; 3. secure the sea painter; 4. attend the frapping lines; 5. release tricing pendants; and 6. operate winch and brake.	The candidate: 1. removed boat cover and strong backs; plugged drain; readied man ropes; shipped tiller; checked that the painter was secure to thwart; and removed gripes; 2. led the painter inside falls and outboard of all obstructions; 3. removed slack and secured well forward by a round turn and figure eights on the bitts; 4. passed frapping lines around falls after the tricing pendants pulled boat into side of the ship, and slacked as ordered during the boat's descent; 5. on command, let go tricing pendants; and 6. on command, lifted brake release and lowered boat.

2. DEMONSTRATION: Safely recover survival-craft

Given a lifeboat in the water, the candidate will command bringing the lifeboat under the falls, hooking the boat to the falls, raising the boat to the embarkation deck, raising the boat to its stowed position, and securing the boat.

STCW competence	Knowledge, understanding and proficiency (KUP)	Performance Condition	Performance Behavior	Performance Standard
Take charge of a survival-craft during and after launch.	Safely recover a lifeboat.	Using a lifeboat in the water,	the candidate will command: 1. bringing the lifeboat under the falls; 2. hooking the boat to the falls; 3. raising the boat to the embarkation deck; 4. raising the boat to its stowed position; and 5. securing the boat.	1. Commands were issued in proper sequence. 2. All tasks needed to recover the boat were verified. 3. The boat was recovered and secured within 15 minutes.

3. DEMONSTRATION: Start and operate a survival-craft engine

Given a lifeboat equipped with an inboard engine, the candidate will start and operate the engine.

STCW competence	Knowledge, understanding and proficiency (KUP)	Performance Condition	Performance Behavior	Performance Standard
Operate a survival-craft engine.	Start and operate a lifeboat engine.	In a lifeboat equipped with an inboard engine,	the candidate will start and operate the lifeboat engine.	1. The oil and cooling water levels were in accordance with manufacturer's recommendations. 2. Actions taken to start the engine were in accordance with operator's manual for the type of engine, hand crank, electric, or hydraulic. 3. The engine was operated in forward, neutral, and reverse.

7. DEMONSTRATION: Rig devices to aid the location of a lifeboat

Given a lifeboat radar reflector, the candidate will correctly rig the lifeboat radar reflector and position the SART.

STCW competence	Knowledge, understanding and proficiency (KUP)	Performance Condition	Performance Behavior	Performance Standard
Use locating devices, including communication and signaling apparatus and pyrotechnics.	Use signaling apparatus.	Given a survival-craft radar reflector and a SART,	the candidate will correctly rig the following devices to aid location: 1. the boat's radar reflector; and 2. the survival-craft SART.	1. The radar reflector was rigged to maximize its radar return. 2. The SART was positioned to maximize its signal output.

8. DEMONSTRATION: Use of survival-craft equipment

Given a SOLAS approved lifeboat, the candidate will demonstrate the correct use of the lifeboat equipment.

STCW competence	Knowledge, understanding and proficiency (KUP)	Performance Condition	Performance Behavior	Performance Standard
Use locating devices, including communication and signaling apparatus and pyrotechnics.	Demonstrate correct use of survival-craft equipment.	Using a SOLAS approved lifeboat,	the candidate will demonstrate the correct use of the following equipment: 1. bilge pump; 2. rainwater collection device; 3. sea anchor; and 4. thermal protective aids.	1. The bilge pump was readied for pumping. 2. The rain-water collection device was correctly deployed. 3. The deployment of the sea anchor was simulated. 4. A TPA was correctly donned.

Assessment Guidelines for TABLE A-VI/2-1

Proficiency in Rescue-Boat Skill Demonstrations

STCW Competence	Knowledge, understanding and proficiency (KUP)	Performance Condition	Performance Behavior	Performance Standard
Take charge of a rescue-boat during and after launch.	Command launching the rescue-boat.	Using a rescue-boat properly stowed on single-arm davit, mounted on a pier or a ship, when hearing an order in English to lower the rescue-boat,	the candidate will command the launching of a rescue-boat.	The candidate issued the following orders in proper sequence and verified they were properly carried out: 1. remove boat cover and securing lines; put in drain plugs if fitted, check fuel- and lube-oil levels, test engine, and make sure all rescue gear is aboard; 2. check that the sea painter is properly attached; 3. secure control lines (if fitted) at rescue-boat bow and stern; 4. check that the out drive has been lowered; 5. swing rescue-boat to the embarkation position; and 6. lower rescue-boat to water*. * If it is unsafe for the rescue-boat crew to ride the rescue-boat from the embarkation position to the water, this task should be simulated.
	Launch the rescue-boat.	Using a rescue-boat properly stowed on single-arm davit, mounted on a pier or a ship, when hearing the orders in English to prepare and lower the rescue-boat,	the candidates, acting as members of the launch crew, will prepare and launch a rescue-boat.* *Candidates will be rotated through all assigned tasks to determine if they have achieved competence.	When ordered, the candidate correctly performed the following tasks: 1. readied the rescue-boat for launch; 2. properly passed and secured the sea painter and control lines (if fitted); 3. lowered the outdrive; 4. positioned the rescue-boat at the embarkation site; and 5. lowered the boat on command.

STCW Competence	Knowledge, understanding and proficiency (KUP)	Performance Condition(s)	Performance Behavior	Performance Standard
Operate a rescue-boat engine.	Operate the rescue-boat during launch.	Using a rescue-boat, when hearing the order in English to man the rescue-boat,	the candidate will act as coxswain and operate the rescue-boat during launch.	The candidate: 1. boarded the rescue-boat; 2. when afloat, started the engine; 3. ordered the release of the releasing hook, after control line (if fitted), forward control line (if fitted), and painter; and 4. departed the ship's side at a shallow angle.
	Operate the rescue-boat during launch.	Using a rescue-boat, when hearing the order in English to man the rescue-boat,	the candidate will act as a member of the rescue-boat crew and will carry out all commands during launch.	The candidate: 1. boarded the rescue-boat; 2. released the releasing hook, after control line (if fitted), forward control line (if fitted), and painter; and 3. fended off as ordered.
Take charge of a rescue-boat during recovery.	Recover the rescue-boat.	Given a rescue-boat in the water connected to the fall of a single-arm davit, mounted on a pier or a ship, when hearing the orders in English to recover and stow a rescue-boat,	the candidate will act as a member of the recovery crew and will recover and stow the rescue-boat.* *Candidates will be rotated through all assigned tasks to determine if they have achieved competence.	When ordered, the candidate correctly performed the following tasks: 1. lowered the painter and control lines to the appropriate height above the water; 2. tended the forward and after control lines (if fitted); 3. lowered the hook; 4. hoisted the rescue-boat to the disembarkation position while tending the control lines (if fitted)*; 5. disembarked the rescue-boat crew; 6. swung the rescue-boat to its stowed position; and 7. properly secured the rescue-boat. * If it is unsafe for the rescue-boat crew to ride the rescue-boat from the water to the disembarkation position, this task should be simulated.

Knowledge, understanding and proficiency	Knowledge, understanding, and proficiency (KUP)	Performance Condition(s)	Performance Behavior	Performance Standard
	Operate the rescue-boat during recovery.	Using a rescue-boat in the-water and connected to the fall of a single-arm davit, mounted on a pier or a ship, when hearing the order in English to return to the ship,	the candidate will operate the rescue-boat during recovery.	The candidate: 1. positioned the rescue-boat under the sea painter eye; 2. directed the crew to grab the sea painter; 3. rode the painter until the boat was in the appropriate position; 4. directed the crew to secure the sea painter on his/her command; 5. directed the crew to secure the forward control line (if fitted), and the after control line (if fitted); 6. directed the crew to secure the releasing hook to the rescue-boat bridle; and 7. secured the engine properly as safety required.
	Command the recovery and stowage of the rescue-boat.	Given a rescue-boat in the water connected to the fall of a single-arm davit, when hearing the order in English to recover the rescue-boat,	the candidate will command the recovery and stowage of the rescue-boat.	The candidate issued the following orders in proper sequence and verified they were properly carried out: 1. lower the painter and control lines to the appropriate height above the water; 2. tend the forward and after control lines (if fitted); 3. lower the hook when he/she signals for it; 4. hoist the rescue-boat to the disembarkation position while tending the control lines (if fitted)*; 5. disembark the rescue-boat crew; 6. swing the rescue-boat to its stowed position; and 7. properly secure the rescue-boat. * If it is unsafe for the rescue-boat crew to ride the rescue-boat from the water to the disembarkation position, this task should be simulated.

United States
Coast Guard

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21 JUNE 1995

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 5-95
Electronic Version for Distribution on the World Wide Web
Subj: GUIDELINES FOR ORGANIZATIONS OFFERING COAST GUARD APPROVED COURSES

1. PURPOSE.

   a. A Focus Group was established in 1993 to advise the Chief of Marine Safety, Security and Environmental Protection on ways to improve the marine licensing program. The resulting report, Licensing 2000 and Beyond, recommended an increased emphasis on formal training through Coast Guard approved courses and strengthened oversight of the approved courses.

   b. This Circular provides guidance to organizations concerning:

      (1) Application procedures for approval of a course,

      (2) Required administrative procedures and record keeping for course offerors,

      (3) Coast Guard oversight procedures to ensure the courses are taught in accordance with the established guidelines, and

      (4) Renewal procedures.

2. DISCUSSION.

   a. A course may be approved by the Coast Guard for three reasons: the course is required by regulations (e.g. radar, firefighting, first aid, etc.); the course may substitute for a Coast Guard examination; or the course may substitute for a portion of the sea service required for obtaining a license or merchant mariner's document.

   b. Coast Guard approval of a training course is authorized in Title 46, Code of Federal Regulations, Part 10, Subpart C (46 CFR 10, Subpart C).

3. IMPLEMENTATION.

   a. Requesting Approval of a Course.

      (1) Training Institutions. An organization desiring to have a course approved by the Coast Guard must submit a written request to the Merchant Vessel Personnel Division at Coast Guard Headquarters (G-MVP-3) via the Officer in Charge, Marine Inspection (OCMI) of the nearest Regional Examination Center (REC) listed in enclosure (1). The request must meet the requirements specified in the model course outline (enclosure (2)).

(2) OCMI. The OCMI reviews the application package to ensure it is complete and in accordance with the model course outline, visits the training facility, and interviews the intended instructors.

(3) Commandant (G-MVP-3). Headquarters reviews the application package to ensure the course meets the standards for the type of training intended and that all submissions are evaluated consistently.

(4) Additional Information Specific, course-content requirements have been developed for courses required by regulations. Copies of the requirements can be obtained through the local REC.

(5) International Maritime Organization (IMO) Model Course Format The model course outline contained in enclosure (1) was developed using the IMO model course format. Any variations from the model shall be justified in the cover letter.

b. Operation of the Course.

(1) Approved Curriculum. Approved courses must be taught from an approved curriculum. Any changes to the approved curriculum must be submitted to Commandant (G-MVP-3) via the OCMI for evaluation and written approval.

(2) Acceptance of New Instructor. After initial course approval, review for acceptance of additional or replacement faculty is done at the REC level.

(3) Records. A training facility offering a Coast Guard approved course must maintain a file at the training facility for at least one year after the end of each student's enrollment. The file must contain the student's examinations, a report of practical tests administered, and a record of classroom attendance. If a course is approved to be taught in more than one location, the records may be maintained at one central location identified in the course approval package.

(4) New Training Site. Review for acceptance of a facility is done at the REC level.

(5) Course Completion Certificates. Course completion certificates must contain the signature of the approved course instructor/director or equivalent, the name of the course, the name of the school and the date of completion.

c. Coast Guard Oversight.

(1) Purpose of Coast Guard Oversight. The Coast Guard considers oversight of training programs to be of critical importance in ensuring compliance with the course approval letter and ensuring that seafarers are provided training that meets at least the minimum requirements. Oversight audits verify that stipulations of the Coast Guard approval letter and 46 CFR 10.303 are followed, and that only accepted instructors teach the approved course.

(2) Types of Audits There are three types of audits: announced, unannounced and customer survey. An announced audit may be conducted either with or without prior notification. The purpose of an announced audit is to review the records

and to monitor a course with the knowledge of school personnel. An unannounced audit is conducted when representatives from the Coast Guard, either civilian or military, attend the course anonymously. A customer survey audit is conducted by REC personnel who interview applicants when a certificate of completion from an approved course is submitted with a license application.

(3) Results. All audits are followed-up by a letter discussing the results of the audit. If an announced audit is conducted, the results will be discussed with school personnel prior to the auditors departing the school.

d. Renewal.

(1) Period of Approval. Initial approvals are effective for a period of two years. Subsequent five-year renewal periods may be granted subject to a written request to Commandant (G-MVP-3), U.S. Coast Guard, via the OCMI.

(2) Approval Renewal Requests. A request for the renewal of an approved course should be submitted to the responsible REC at least 90 days before the current approval expires. Courses submitted for renewal shall be in the same format as original submittal. To facilitate the renewal process, all changes should be highlighted. If there have been no changes since the last approval, a statement to the effect that the curriculum, instructors and facilities are the same should accompany the submittal.

(3) Coast Guard Visit. When a school with an existing approved course submits a renewal request, Coast Guard representatives will visit the school as part of their evaluation and note their findings in the forwarding letter to Commandant (G-MVP-3).

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CAPTAIN, U.S. COAST GUARD
ACTING CHIEF, OFFICE OF MARINE SAFETY,
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U.S. COAST GUARD REGIONAL EXAMINATION CENTERS

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Anchorage, AK 99501-1946
(907)271-6735

Commanding Officer (REC)
U.S. Coast Guard
Marine Safety Office
2760 Sherwood Lane, Suite ~
Juneau, AK 99801-5845
(907)463-2450

Commanding Officer (REC)
U.S. Coast Guard
Marine Safety Office
6767 N. Basin Ave.
Portland, OR 97217-3992
(503)240-9346

Commanding Officer (REC)
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Marine Safety Office
Customhouse
Baltimore, MD 21202-4022
(410)962-5132

Commanding Officer (REC)
U.S. Coast Guard
Marine Safety Office
455 Commercial Street
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Commanding Officer (REC)
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433 Ala Moana Blvd. Rm 1
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Marine Safety Office
165 N. Pico Avenue
Long Beach, CA 90802-1096
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1440 Canal Street, Eighth Floor
New Orleans, LA 70112-2711
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Marine Safety Office
Room 1.211
1222 Spruce Street
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(314)539-2657

Commanding Officer
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Building 14,
Coast Guard Island
Alameda, CA 94501-5100
(510)437-3096

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Marine Safety Office
1519 Alaska Way S., Bldg. 1
Seattle, WA 98134-1192
(206)217-6115

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234 Summit St.
Toledo, OH 43604-1590
(419)259-6395

MODEL COURSE OUTLINE

INTRODUCTION: The course curriculum package must include the following:

a. Cover Letter.
b. Course Framework.
C. Course Schedule.
d. Detailed Teaching Syllabus.
e. Course Outline.
f. Instructor Manual.
g. Examination.
h. Course critique.

COVER LETTER: The cover letter from the school must contain the name of the course, the location where it will be held, a general description of the course, and what type of approval is being sought:

a. To satisfy a specific regulatory requirement (e.g. radar, firefighting, first aid, etc.).
b. To qualify for sea service credit.
c. To substitute for an examination requirement.

COURSE FRAMEWORK: This section provides an overview of the purpose, nature, and individual components of the course.

Scope. A brief description of the course.

Objective. A statement discussing the goal(s) and learning objective(s) of the course.

Entry standards. A list of the prerequisites for a student to attend the course.

Class limitations.

Class size: State the maximum class size for classroom lessons and, if appropriate, for practical demonstrations or simulation program lessons, along with the number of the students per simulator.

Student/teacher ratio: State the student/teacher ratio and discuss the organization's policy for circumstances when more than one instructor will be present during any of the lessons.

Instructors. A list of instructors with a description of their experience, background and qualifications to demonstrate they have the capability to impart the required information to the students. Instructors should have experience in teaching or have attended a course in instruction techniques. In addition, the instructor must hold a valid Coast Guard license, document or certificate appropriate to the course(s) being taught or have experience specific to the subject(s) being taught.

Teaching facilities and equipment.

Facility: The address and a description of the facility at which the training will be held.

Course equipment: A description of the equipment that will be used during the course. This includes all equipment to be used during hands-on training and/or testing, and any simulators or

simulation programs to be used. If a simulator or simulation program is to be used, include technical specifications and brochures provided by the manufacturer.

Teaching aids.

Visual aids: Copies of all visual aids and a discussion of how audiovisual and other aids will be used during the training course, and which performance objectives they will impact. This information may be a part of the curriculum documentation that discusses the make up of the lesson plans.

Textbooks: Copies of all student handouts, homework assignments, workbooks, and a bibliography of the student textbooks to be used. The Coast Guard may ask for copies of textbooks it does not have access to, and will return the texts after the course has been evaluated.

DETAILED TEACHING SYLLABUS: The Detailed Teaching Syllabus is written in learning objectives format in which the objective describes what the student must do to demonstrate that the specific knowledge or skill has been learned. References should be made against the learning objectives to indicate which publications and teaching aids the instructor may use when preparing and presenting the course material. The syllabus shall include the total length of each subject area in hours. See figure (1) for a sample detailed teaching syllabus.

COURSE SCHEDULE: The course schedule is submitted in a format similar to figure (2). The course schedule shall include the length of each lesson and indicate whether the lesson is a classroom lecture, practical demonstration, simulator exercise or examination. Each subject matter in the course schedule is prefaced by a number that corresponds to the subject area listed in the Detailed Teaching Syllabus and Course Outline. For example, all lessons prefaced by "8" in the course schedule directly relates to the Planning and Carrying Out a voyage
subject area listed in the Detailed Teaching Syllabus and Course Outline.

COURSE OUTLINE: The course outline is a summary of the syllabus by subject area with the number of hours for each lecture, practical demonstrations, or simulation program. This shows the focus of the course while highlighting how the course meets IMO and Coast Guard time requirements. See figure (3) for a sample course outline.

INSTRUCTOR MANUAL: The instructor's manual provides specific guidance on teaching strategies and techniques used during course instruction. The manual shall address the presentation strategies for each lesson identified in the course schedule.

EXAMINATION AND ASSESSMENT:

Method of examination: An explanation shall be included of how the students' performance will be evaluated throughout the course. Include whichever is applicable:

Written examinations: Copies of all written examinations, the grading procedure to be used, frequency of revision, and what will be considered a passing score.

Practical demonstrations: Detailed descriptions of all practical or simulator examinations, tests, or exercises that describe the situation presented to the student; what the students must do to successfully complete each test; and how each student's performance will be evaluated and recorded. Provide a separate checklist to evaluate each practical examination and what is considered a passing score.

Note: Instructors shall not assist students in any way during the evaluation process.

Determination of final grade. A discussion of how the instructor(s) will determine final grades by proportioning written and practical examination scores as appropriate.

Re-test procedures: A description of the school's policy on re-tests of failed examinations.

COURSE CRITIQUE: Student course evaluation form(s) are a necessary method by which students are given the opportunity to provide feedback to the school on the suitability of the course.

FIGURE 1

SAMPLE DETAILED TEACHING SYLLABUS

USING A SHIPHANDLING COURSE AS AN EXAMPLE

Detailed Teaching Syllabus

The detailed teaching syllabus has been written in learning-objective lot-mat in which the objective describes what the trainee must do to demonstrate that the specific knowledge or skill has been transferred.

All objectives are understood to be prefixed by the words$_1$ ~e expected learning outcome is that the trainee ----------

In older to assist the instructor$_1$ references are shown against the learning objectives to indicate IMO references and publications and teaching aids, which the instructor may wish to use when preparing and presenting the course material. The material listed in the course framework has been used to structure the detailed teaching syllabus:
in particular,

Teaching aids (indicated by A). and

IMO references (indicated by R)

will provide valuable information to instructors. The abbreviations used are:

App.: appendix

p.,pp.: page, pages

Para.: paragraph

Reg.: regulation

Learning Objectives

1 Review of basic principles (2 hours)

.1 states the basic principles to be observed in keeping a navigational watch as set out in regulation 11/1 of STCW 1978 regarding:
- watch arrangements
- navigation
- navigational equipment
- navigational duties and responsibilities
- navigation with pilot embarked

.2 describes the properties of the different chart projections used for navigation

.3 states the datums used on charts for:
- position
- height
- depth
- direction

.4 lists methods commonly available for position fixing. with an indication of their accuracy

.5 e-w - corrections for datum shift must be a-led to the position obtained by certain navigational aids to agree with the position obtained by visual or radar observations

.6 states the accuracy of range and bearing measurements required by the performance standards for radar equipment

.7 describes factors affecting radar detection. including blind and shadow sectors

.8 explains how the characteristics of targets influence their detection range

.9 demonstrates how to obtain fix based on radar observations and c-Ins possible errors and how to minimize them

.10 demonstrates the use of parallel indexing technique: for monitoring a ship’s movement

.11 demonstrates the use of nautical publications ions. including:
- tide tables
- current charts
- notices 10 mariners
- lists of lights
- sailing directions

2 familiarization with the bridge (1.5 hours)

.1 demonstrates the operation of the different instruments on the bridge

.2 uses the rudder and the engine controls

.3 describes and allows for the parallax in the visual system (if any)

3 Standard manoeuvres (3.5 hours)

.1 carries out a turning-circle trial with given initial speed and rudder angle in the loaded condition

.2 describes how to carry out zig-zag manoeuvres

.3 carries out a crash stop

.4 carries out a coasting stop

.5 repeats one manoeuvre from objectives 3.1 to 3.4 for the same ship in the ballast condition

.6 records times, positions, headings. speed and other relevant data

.7 plots the manoeuvres from the recorded data

.8 compares plots for loaded and ballast conditions

.9 describes how trim affects the pivot point during turns

.10 demonstrates how to make a pilot card and a wheelhouse poster

.11 explains how the information in the manoeuvring information booklet can be used when planning a manoeuvre

4 Wind and current effects (2 hours)

.1 repeats a standard manoeuvre with wind and current present for the loaded condition

.2 repeats the manoeuvre in objective 4.1 for the ballast condition

.3 records times, positions, headings. speeds and other relevant data

.4 plots the manoeuvres from the recorded data

.5. compares the result with that of the same manoeuvre without wind and current

.6 compares the results for loaded and ballast conditions

.7 compares the difference in ship behavior under the influence of wind. of current and of both wind and current

.8 for various conditions of loading. investigates the effect of wind in slow speed situations

5 Shallow-water effects (4 hours)

.1 defines shallow water

.2 states that, in shallow water, a ship:

- has increased directional stability
- has an increase in turning radius
- carries her way longer and responds slowly to changes in engine speed
- has a smaller fall of speed during turns
- experiences a change of trim, usually by the head for a full hull form

.3 states that shallow-water effects become more marked as the depth decreases

.4 defines squat

.5 determines the squat in a-given.set of circumstances from the manoeuvring information supplied

.6 repeats a standard manoeuvre in shallow water

.7 records times. positions, headings, speeds and other relevant data

.8 plots the manoeuvre from the recorded data

.9 compares the resulting plot with that of the same manoeuvre carried out in deep water

.10 describes the reduction in under-keel clearance resulting from rolling and pitching

6 Bank, channel and interaction effects (1.5 hours)

.1 describes the moments and forces affecting a ship's behavior when navigating close to a bank or in narrow channel

.2 states that speed should be moderate in rivers, estuaries and similar channels to reduce shallow-water effects and to provide reserve power for correcting a sheer

.3 explains the need for speed reduction to prevent damage being caused by the ship's bow wave or stem wave

.4 describes how a passing ship affects a moored ship

.5 describes the interaction between passing and overtaking ships

.6 describes how to pass or overtake another ship safely in a narrow channel

.7 applies a knowledge d bank effect and interaction in exercises in confined channels

7 Anchoring and single-buoy mooring (2.5 hours)

.1 selects the position to anchor in a given area

.2 takes account of advice contained in sailing directions, of the wind and Of current or tidal stream in the approach' to the anchorage

.3 using the ship's manoeuvring data, prepares an anchoring containing:

- approach tracks and courses to steer
- “wheel-over” positions
- points at which to reduce speed
- the position at which to reverse the engine
- the position to drop the anchor
- means of monitoring progress and determining arm- at critical points

.4 prepares a contingency -I outlining the actions to take in the event of an engine failure or steering failure at various stages of the approach

.5 uses a checklist for readiness for anchoring

.6 carries out the prepared anchoring

.7 modifies the plan, if necessary, to take account of other ships already anchored

.8 maintains a record of engine movements and makes appropriate entries in the log-book

.9 when anchoring is complete. fixes the .ship's position and enters check bearings in the log-book

.10 prepares a planned approach to a single-buoy mooring. taking account of the relevant factors in objectives 72 to 7.4

.11 carries out the planned mooring

8 Planning and carrying out a voyage (13 hours)

.1 prepares a compete passage plan from harbour to harbour, taking account of the following:
- information from sailing directions and other navigational publications
- draught, squat and depth of water
- tide and current
- weather
- available navigational aids
- means of monitoring progress and determining arrival at critical points
- expected traffic
- traffic separation schemes
- requirements of vessel traffic services
- contingency plans for critical points of the passage

.2 makes use of checklists for departure. for arrival and for coastal waters

3 using the ship's manoeuvring information. prepares a detailed ~ for approach to and departure from a pilot station

.4 carries out the planned passage and monitors the progress

.5 complies at ail times with the requirements of regulation 11/1 of STOW 1978 and COLREG 1972

.6 demonstrates compliance with Rule 10 of OOLREG 1972 when joining, leaving or navigating in a traffic separation scheme

.7 demonstrates correct procedures when communicating with a vessel traffic service

.8 demonstrates the approach to or departure from a pilot station, using plan prepared in objective &3

.9 demonstrates skill in approaching or leaving berth under various conditions of wind and tide

10 maintains a record of engine movements and makes appropriate entries in the log-book

FIGURE 2

SAMPLE COURSE SCHEDULE

Hours	Day 1	Day 2	Day 3	Day 4	Day 5
	(1) Review of basic principles	(3) Simulator exercise (3) Debriefing (4) Wind & current (lecture)	(5) Preparation (5) Simulator exercise (6) Bank, channel & interaction effects (lecture)	(8) Preparation (8) Simulator exercise	(8) Preparation (8) Simulator exercise
Break					
	(1) Review of basic principles (contd) (2) Familiarization with the bridge	(4) Simulator exercise (4) Debriefing (4) Simulator exercise	(6) Bank, channel & interaction effects (demonstration) (7) Anchoring (lecture)	(8) Simulator exercise (cont'd) (8) Debriefing & preparation	(8) Simulator exercise (cont'd) (8) Debriefing & preparation
Lunch					
	(2) Familiarization (cont'd) (3) Standard Maneuvers (3) Simulator exercise	(4) Debriefing (5) Shallow-water effects (lecture)	(7) Anchoring (demonstration) (7) Preparation (7) Simulator exercise	(8) Simulator exercise (8) Debriefing	(8) Simulator exercise (8) Debriefing
Break					
	(3) Debriefing & preparation	(5) Simulator exercise (5) Debriefing (5) Simulator exercise	(7) Debriefing (8) Planning a voyage (lecture)	(8) Preparation (8) Simulator exercise	(8) Debriefing (cont'd) (8) Final debriefing
		(5) Debriefing		(8) Debriefing	

( ) Numerical values relate to Course Syllabus numbering

FIGURE 3

SAMPLE COURSE OUTLINE

Subject Area	Hours	
	Lecture	Simulator
1 Review of basic principles	2	-
2 Familiarization with the bridge	-	1.5
3 Standard maneuvers	0.5	3
4 Wind and current effects	0.5	1.5
5 Shallow-water effects	1	3
6 Bank, channel and interaction effects	0.5	1
7 Anchoring and single-buoy mooring	0.5	2
8 Planning and carrying out a voyage	1	12
TOTAL	6	24
GRAND TOTAL	30	